

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventor(s): MANABE et al.

Appln. No.: 09

677,781

Series Code ↑

Serial No. ↑

Filed: October 2, 2000

Hon. Commissioner of Patents
Washington, D.C. 20231

Group Art Unit 2812

Examiner: S. MULPURI

Atty. Dkt. P

273686

F00-219-USdiv3

M#

Client Ref

Appln. Title: A METHOD FOR MANUFACTURING A
GALLIUM NITRIDE GROUP
COMPOUND SEMICONDUCTOR

Sir:

REPLY/AMENDMENT/LETTER

Date: July 12, 2002

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. Small Entity claim

A. ☒ NOT madeB. ☐ WithdrawnC. ☐ made herewithD. ☐ made previously

For B & C

See **Required****Separate Paper**

(Pat-256)

Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	64	**minus 100	0	x \$18/\$9 = + \$0	103/203
3. Independent Claims	4	***minus 6	0	x \$84/\$42 = + \$0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) add				+ \$280/\$140 = + \$0	104/204
5. Original due Date: May 12, 2002	<input type="checkbox"/> NONE				
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached	(1 mo) \$110/\$55 = (2 mos) \$400/\$200 = (3 mos) \$920/\$460 = (4 mos) \$1,440/\$720 = (5 mos) \$1,960/\$980 =		+ \$400		115/215 116/216 117/217 118/218 128/228
7. Enter any previous extension fee paid since above original due date and subtract		- \$0			
8.			Extension Fee	+ \$400	
9. If Terminal Disclaimer attached, add Rule 20(d) official fee		+ \$110/\$55		+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), add		+ \$180		+ \$0	126 126
or if Rule 97(d) Request add		+ \$180			
11. After-Final Request Fee per rules 129(a) and 17(r)		+ \$740/370		+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b)		x \$740/370 ea		+ \$0	149/249
13. Request for Continued Examination (RCE)		+ \$740/370		+ \$0	1179/1279
14. Petition fee for				+ \$0	

15.

TOTAL FEE = \$400

16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

**PLEASE CHARGE
OUR DEP. ACCT**

Our Deposit Account No. 03-3975)

(Our Order No. 31317 273686

C#

M#

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

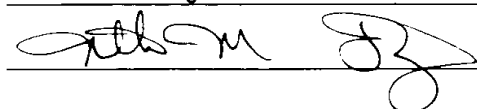
This **CHARGE STATEMENT** does not authorize charge of the **issue fee** until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Winthrop LLP
Intellectual Property Group

By Atty: Kenneth M. Fagin

Sig:



Reg. No. 37,615

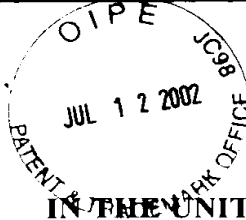
Fax: (703) 905-2500

Tel: (703) 905-2066

1600 Tysons Boulevard
McLean, VA 22102
Tel: (703) 905-2000

Atty/Sec: KMF/ASW/smm

NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF
MANABE et al.

Appln. No.: 09/677,781

Filed: October 2, 2000

Title: A METHOD FOR MANUFACTURING A GALLIUM NITRIDE GROUP COMPOUND
SEMICONDUCTOR

Confirmation No.: 4206

Group Art Unit: 2812

Examiner: S. MULPURI

RECEIVED
JUL 17 2002
TO 2800 MAIL ROOM

July 12, 2002

* * * * *

AMENDMENT UNDER 37 C.F.R. § 1.111

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated February 12, 2002, please amend the
application identified above as follows:

IN THE CLAIMS:

Please cancel claims 111 and 112 without prejudice or disclaimer.

Please enter the following amended claims 53-56:

53. (Amended) A method for producing a gallium nitride group compound semiconductor by an organometallic compound vapor phase epitaxy, comprising the steps of:
setting a supplying rate of silicon (Si) to gallium (Ga) in a reaction chamber during said vapor phase epitaxy at a desired value in a range from 0.1 to 3 as converted values so as to control conductivity (1/resistivity) of said gallium nitride group compound semiconductor at a desired value such that said conductivity increases with increasing of said supplying ratio, where said values 0.1 and 3 are the values obtained from gas flow rates, in case that an amount of said gallium (Ga) is converted into a flow rate of hydrogen bubbling trimethyl gallium (TMG) at a temperature of -15°C and an amount of said silicon (Si) is converted into a flow rate of a gas diluted to 0.86 ppm.

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54. (Amended) A method for producing a gallium nitride group compound semiconductor by an organometallic compound vapor phase epitaxy, comprising the steps of: